

Self-Implementing Alternate Dilution Water Guidance

1. **Introduction:**

The objective of the Whole Effluent Toxicity (WET) test is to estimate the toxicity of the effluent in uncontaminated receiving water. Ideally, a grab sample of receiving water must be collected upstream and/or outside of the influence of the outfall for use as dilution water in the tests.

EPA-Region I has adopted a *species-specific*, self-implementing policy for switching to an alternate dilution water during the life of the NPDES permit for WET tests where the receiving water is documented to be toxic or unreliable. The policy authorizes alternate dilution water use:

- (1) in any WET test repeated due to site water toxicity. No prior notification to EPA is required for any current test that needs to be repeated due to site water toxicity; and
- (2) in future WET tests where there are two previously documented incidents of site water toxicity associated with a particular test species. Written notification to EPA is required before switching to alternate dilution water testing for the duration of the life of the permit.

The details of EPA-Region I's species-specific, self-implementing policy are provided below.

2. **The Details of EPA-Region I's Self-Implementing Alternate Dilution Water Policy**

Case (1): EPA-Region I authorizes the use of an alternate dilution water for any WET test repeated due to site water toxicity. This authorization is *species-specific*. If the Permittee is required to conduct WET tests using two species, and the receiving water is toxic or unreliable for only one species, then alternate dilution water use is authorized for that species only.

- (a) The Permittee no longer has to *immediately* notify EPA before an invalid WET test is repeated using an alternate dilution water.
- (b) The test must be repeated during the monitoring period specified by the Permit.
- (c) The selected alternate dilution water must have characteristics such as hardness, pH, conductivity, alkalinity, organic carbon, and total suspended solids similar to those of the receiving water, and should not produce a toxic response. Receiving water controls must also be run in alternate dilution water tests.
- (d) A complete WET test report must be submitted by the Permittee as required by the Permit. The report must clearly document:
 - (1) that site water toxicity rendered the first test invalid;
 - (2) that a retest was conducted using an alternate dilution water that matched the characteristics of the site water;
 - (3) that site water controls were included in the retest; and

- (4) whether the site water controls of the retest met the minimum test acceptability criteria.
- (e) If the retest documented that the site water controls met the minimum test acceptability criteria, site water must be used as diluent in future WET tests. If the site water controls of the retest failed to meet test acceptability criteria, an alternate dilution water may be used in future WET tests using that test organism after submitting written notification to EPA. (See Case (2) below.)

Case (2): EPA-Region I authorizes the use of an alternate dilution water in future WET tests (for the duration of the life of the permit) after two documented incidents of site water toxicity to a particular test species.

- (a) Before alternate dilution water testing begins, the Permittee must submit to EPA written notification of site water toxicity, provide supporting data, describe the alternate dilution water selected, and confirm that the required sets of controls will be run in future WET tests (e.g., site water controls, lab water controls, and adjusted lab water controls). This letter shall be sent to both of the following:

Linda Murphy, Director
Office of Ecosystem Protection (CAA)
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

Gerard Sotolongo, Chief
Water Technical Unit (SEW)
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

- (b) At a minimum, EPA will review alternate dilution water authorizations during permit reissuance.

3. Telephone Contacts:

If you have questions, please contact Joy Hilton, Water Technical Unit, at (617)918-1877 or David McDonald, Ecosystem Assessment Unit, at (781)860-4609.

4. Disclaimer:

This guidance is intended to promote compliance and enhance program efficiency and effectiveness. This is not intended to, nor does it, constitute rulemaking by EPA and may not be relied upon to create a right or a benefit, substantive or procedural, enforceable at law or in equity, by any person. EPA reserves the right to revoke this guidance at any time and may immediately require the Permittee to use site water as diluent as EPA deems necessary. Such a determination will be provided in writing to the Permittee.